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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,277	02/24/2004	Maurizio Tamburro	CM2601MC2	3843

27752 7590 11/16/2006

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CINCINNATI, OH 45224

EXAMINER
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DAVIS, JENNA L

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/785,277

Applicant(s)

TAMBURRO ET AL.

Examiner

Jenna Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Response to Amendment***

The amendment filed August 18, 2006, has been entered. Claim 1 has been amended and claims 2 and 9 have been cancelled. The pending claims are 1, 3-8, and 10.

### ***Claim Rejections - 35 USC § 102/103***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, and 10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ohnishi (US Patent 6524508 substantially as set forth in section 5 of the Office action dated May 18, 2006).

Claim 1, 3-8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelkenberg (US Patent 5496933 in view of Kellenberger (US Patent 4699823) and Sackmann (US Patent 5635569) substantially as set forth in section 6 of the May 18, 2006, Office action.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA

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1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b). Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-, 3-8 and 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,833,487 in view of Kellenberger et al. and Sackmann et al.

The claims of the '487 Patent disclose an absorbent member containing chitosan salt particles. With regard to claims 1, 3, and 4, the '487 Patent claims a disposable article having a topsheet, backsheet, and absorbent core having chitosan salt. Although the claims are silent as to the size of the particles and the placement in the layers, Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles at the size of 300 microns or less, including between 10 and 800 nm, in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '487 Patent since the patent claims chitosan salt known to be soluble in water (claims 5 and 15). The burden is upon Applicant to prove otherwise. With regard to claims 1 and 10, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 5, see claim 4 of the '487

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Patent. With regard to claim 6, see claims 5 and 15 of the '487 Patent. With regard to claim 7, Kellenberger et al. teach the fibrous core batt is air-formed (column 4, lines 43-44). With regard to claim 8, see claim 14 of the '487 Patent.

Claims 1, 3-8 and 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,867,287 in view of Kellenberger et al. and Sackmann et al.

The claims of the '287 Patent disclose an absorbent member containing chitosan salt particles. With regard to claims 1, 3, and 4, the '487 Patent claims a disposable article having a topsheet, backsheet, and absorbent core having chitosan salt. Although the claims are silent as to the size of the particles and the placement in the layers, Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles at the size of 300 microns or less, including between 10 and 800 nm, in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '487 Patent since the patent claims chitosan salt known to be soluble in water (claims 5 and 15). The burden is upon Applicant to prove otherwise. With regard to claims 1 and 10, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 5, see claim 3 of the '287

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Patent. With regard to claim 6, see claim 4 of the '287 Patent. With regard to claim 7, Kellenberger et al. teach the fibrous core batt is air- formed (column 4, lines 43-44). With regard to claim 8, see claim 7 of the '287 Patent.

Claims 1, 3-8 and 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,887,564 in view of Kellenberger et al. and Sackmann et al. The claims of the '564 Patent disclose an absorbent member containing chitosan salt particles. With regard to claims 1, 3, and 4, the '487 Patent claims a disposable article having a topsheet, backsheet, and absorbent core having chitosan salt. Although the claims are silent as to the size of the particles and the placement in the layers, Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles at the size of 300 microns or less, including between 10 and 800 nm, in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '487 Patent since the patent claims chitosan salt known to be soluble in water (claims 5 and 15). The burden is upon Applicant to prove otherwise. With regard to claims 1 and 10, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 5, see claim 4 of the '564 Patent. With regard

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to claim 6, see claim 8 of the '564 Patent. With regard to claim 7, Kellenberger et al. teach the fibrous core batt is air- formed (column 4, lines 43-44). With regard to claim 8, see claim 9 of the '564 Patent.

Claims 1, 3-8 and 10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 10/785,464. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '464 Application claims a disposable absorbent article that comprises the claimed absorbent member having chitosan salt particles with similar particle size ranges. Also, dependent claims 2-12 in the '464 Application are similar to claims 2-10 of the present application. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1, 3-4, 6, 7, and 10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 11/021,634 in view of Kellenberger et al.

With regard to claims 1, 3, and 4, the '634 Application claims an absorbent member with chitosan salts having similar particle diameter. The '634 Application does not disclose the particles to be contained within an absorbent member. Kellenberger et al. teach that absorbent core material comprising absorbent particles should be sandwiched between a topsheet and a backsheet in order to form a diaper. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the absorbent core of the '634 Application between a topsheet and a backsheet in order to form a diaper, as taught by both Kellenberger et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the

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chitosan salts claimed in the '634 Application since the it claims chitosan salt known to be soluble in water (claim 4). With regard to claims 1 and 10, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 6, see claim 4 of the '634 Application. With regard to claim 7, Kellenberger et al. teach the fibrous core batt is air-formed (column 4, lines 43-44). This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### Response to Arguments

Applicant's arguments filed April 13, 2006 have been fully considered but they are not persuasive.

Applicant argues that Ohnishi fails to disclose an absorbent member comprising at least one region of chitosan positioned on a first or second surface of the absorbent member. This is unpersuasive as the chitosan would be present on the surfaces when the acrylic fibers of Ohnishi are on the surface.

Applicant argues that Ohnishi et al. fail to disclose chitosan that dissolves in water and that Ohnishi et al. dissolve the chitosan in the presence of an acid. However, Ohnishi et al. teach dissolving the chitosan in the presence of an acid in order to form a chitosan salt (column 7, lines 32-33). Applicant's claims require that a "chitosan salt" to be soluble in water, not chitosan. Ohnishi et al. teach preferred acids include both formic and lactic acids (column 8, lines 17-19). These are similar acids used by Applicant (see present claim 6, for instance), so it is reasonable to presume that the chitosan salt formed by Ohnishi et al. would inherently meet the claimed solubility limitation, as set forth above.



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Applicant argues that Ohnishi et al. fail to disclose an absorbent member comprising at least one region located on said absorbent member with particles of chitosan salt because the particles of chitosan in Ohnishi et al. are dispersed within the interior of the individual fibers. The Examiner agrees that the chitosan particles in Ohnishi et al. are dispersed within the fibers. However, one can read the fabric of Ohnishi et al. to comprise the claimed "absorbent member." Upon doing so, then a fiber comprising the chitosan salt can be read to meet the claim limitation of "at least one region located on said absorbent member with particles of ... chitosan" because the fiber of Ohnishi et al. would be located on the fabric in a region.

Applicant argues that Ohnishi et al. do not disclose an absorbent member because they disclose individual fibers arranged to form a spun yarn, woven cloth, and nonwoven fabric. However, it is unclear how the recitation of an "absorbent member" is outside the scope of yarn or a fabric. A fabric can absorb so it is an absorbent member.

Applicant argues Ohnishi et al. do not disclose the affinity to water of the fibers disclosed therein. However, Ohnishi et al. teach the fabric material can comprise cotton fibers (column 6, line 63) so the absorbent member of Ohnishi et al. is hydrophilic. Additionally, Ohnishi et al. teach the acrylic fiber having the chitosan particles dispersed therein swells in water (column 7, line 27), so they too are hydrophilic. 18. Applicant argues that Kelkenberg, Kellenberger et al., and Sackmann, fail to teach chitosan with the claimed solubility. However, Kelkenberg uses the same process disclosed by Applicant of mixing the chitosan with acid in order to render it soluble in water. It is therefore reasonable to presume the claimed property to be inherent to the material of Kelkenberg absent evidence proving otherwise.

Applicant argues Kelkenberg fails to teach particles of chitosan on the absorbent member. However, Kelkenberg teaches incorporating the particles into cellulose containing absorbent, hygienic articles (column 4, lines 18-24). The absorbent member would be the fibers of the cellulosic core within a hygienic article. 20. Applicant argues that Kelkenberg fails to disclose particles with a mean diameter of not more than 300 microns. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Kelkenberg lays the groundwork for using smaller particle size by disclosing the chitosan particles should have a particle size a lot lower than 500 microns (column 3, lines 4-6). Kellenberger et al. and Sackmann et al. are used to fortify the idea that using particle sizes within the claimed range are well known and provide various benefits, as set forth above. 21. Applicant argues that Kellenberger et al. and Sackmann et al. fail to teach chitosan and those references use superabsorbent polymers. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. Kellenberger et al. was used to show the structure of a hygienic article and both Kellenberger et al. and Sackmann et al. were used for the teaching of smaller particle size in superabsorbents. Kelkenberg is used for the teaching of chitosan salt.

Concerning the double patenting rejections, Applicant argues that US 6,833,487, US 6,867,287, and US 6,887,564 fail to claim particles with a mean diameter of not more than 300 microns and wherein at least 3 grams of said chitosan material is soluble in 100 grams of water at

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25 degrees C and one atmosphere. Applicant also argues that Kellenberger et al. and Sackmann et al. fail to teach using chitosan and instead use superabsorbent polymer. These arguments attack the references individually, rather than their combination. But one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. There is a reasonable basis set forth above in the rejection for believing that the newly claimed solubility property is inherent to the materials of the '487, '287, and '564 Patents.

Applicant argues that Kellenberger et al. and Sackmann et al. are not relevant to the behavior of particles of chitosan. However, both Kellenberger et al. and Sackmann et al. teach small particle size of superabsorbent material. Chitosan salt is a superabsorbent material. Therefore, the references are combinable with the Kelkenberg reference and the '487, '287, and '564 Patents.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

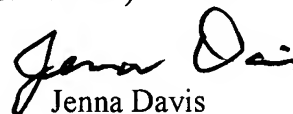
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna Davis whose telephone number is 571-272-3357. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jenna Davis  
Primary Examiner  
Art Unit 1771

jld